

**ABSTRACT**

The invention is a method and associated apparatus for mounting an optical subassembly of an optical reading device onto an image sensor subassembly of an optical reading device with use of solder as a bonding material. In accordance with the invention, solderable surfaces are formed on either or both an optical subassembly and an image sensor subassembly. For mounting of the optical subassembly onto the image sensor subassembly, an assembly station worker aligns optical and imaging elements by observing indicia corresponding to electrical signals generated by the image sensor under controlled conditions, and then, when alignment is established, solders the subassemblies at any interfaces that are defined by the solderable surfaces. The solderable surfaces of either or both the optical or image sensor assemblies may be made in irregular configurations having increased surface areas per unit three dimensional space relative to that of a smooth surface. In one embodiment, the solderable surfaces include a pin on one of the subassemblies and a hole on the remaining subassembly.